

REMARKS

After entry of the present amendment, Claims 1-7 remain pending. The present amendment amends claims 1-5 to clarify the scope of the claimed invention. Claim 7 has been added to further clarify the scope of the claimed invention. A marked-up and clean substitute specification are hereby submitted to correct minor grammatical errors and claim objections. No new matter has been added.

Consideration of the amended claims in view of the accompanying remarks is respectfully requested.

Claim Objections

The Office Action objects to the use of the acronyms "SPC", "DP", and "HW", and recommends that each must be spelled out at least once in the claim. By the present amendment, claims 1-5 have been amended such that acronyms have been replaced with the full name. In particular, the detailed amendments in the claims are as follows:

- Change "SPC" in claims 1 and 3 to "stored program control".
- Change the "DP" in claims 2, 4, and 5 to "dial pulse".
- Change the "DTMF" in claim 2, 4, and 5 to "dual tone multi frequency".
- Change the "HW" in claim 2 to "highway".

Claim Rejections Under 35 U.S.C. § 112

The Office Action rejects claim 2 under 35 U.S.C. § 112, second paragraph, wherein the phrase "such as" allegedly renders the claim indefinite. By the present amendment, Claim 2 is amended by deleting the phrase: "such as the dial tone and busy tone". Furthermore, newly added claim 7 (dependent from claim 2) includes the elements, "the dial tone and busy tone", which were deleted in part from claim 2 by the present amendment.

Claim Rejections Under 35 U.S.C. § 102

In the non-final Office Action, independent claims 1 and 3 were rejected under 35 U.S.C. § 102(e) as being anticipated by Hoffman et al., U.S. Patent No. 6,826,259 ("*Hoffman*"). Since *Hoffman* does not disclose or suggest each and every element of the Applicants' claimed invention, the Applicants respectively argue that the claims are patentably distinguishable from the cited reference.

Claim 1:

Hoffman differs substantially from the claimed invention of amended independent claim 1. *Hoffman* pertains to a method of emulating a terminal and test apparatus for testing a communication network (Abstract). The method and test apparatus of *Hoffman* can emulate certain test scenarios resulting from mis-operation of a connected apparatus and simulate terminal behavior encountered in practice. (Col. 3, lines 57-63). The test apparatus of *Hoffman* connects to a telecommunication network to emulate the terminal function. (Col. 5, lines 10-14). In contrast, the Applicants' claimed invention of claim 1 relates to a simulated user test call system built in to a digital stored program control switch to provide various testing processes by way of a front call control process module, a back process module, and a hardware subsystem. While *Hoffman* may facilitate certain testing of a telecommunications network by way of emulation of a terminal, the Applicants' claimed invention of claim 1 relates to a call test system built in to a digital SPC switch and comprising one or more process modules to facilitate or otherwise perform certain call tests.

In particular, the claimed invention of claim 1 can include various process modules and a hardware subsystem for performing certain call tests and reporting results. For example, the claimed invention of claim 1 can include a back process module which can "receive call test result data transmitted by the front call control process module" and can "perform display and statistical processes". Further, the claimed invention of claim 1 can include a front call control process module to "perform a call test according to a flowchart and user parameter set", and "report a result of the call test to the back process module". Moreover, the claimed invention of claim 1 can include a hardware subsystem that performs tests comprising at least one of "picking-up or hanging-up phones, detecting signaling tone, dialing, sending a test tone, or

talking” and can further “report test results to the front call control process module”. (See Paragraphs [0049] – [0059] of Applicants’ Specification).

In response to the Office Action assertion that *Hoffman* discloses these elements in Col. 5, lines 32 – Col. 7, lines 19, the cited portions of *Hoffman* make no reference to such elements, but rather, relate to emulating a terminal for testing a telecommunication network by focusing on correlating user entered keywords to compile an executable program (See Col. 3, lines 48-67). For example, *Hoffman* describes steps for the entry of keywords into a terminal GUI, but there is no description of interactions between a SPC switch, process modules, or a hardware subsystem, as in claim 1 of the claimed invention. *Hoffman* describes a display window 32 for a user to enter keywords. (See Col. 5, lines 15-50). The test apparatus of *Hoffman* checks each keyword for a match to prior entered keywords, each of which is assigned a program code. (See Col. 5, line 33 – Col. 6, line 57). The program codes of several keywords are linked by a compiling device in the test apparatus following completion of an entry to provide an executable test program. (See Col. 5, lines 57-60). The test program executed by the test apparatus of *Hoffman* appears to be implemented from a test apparatus at a selected terminal rather than from within a switch. Thus, *Hoffman* requires an external piece of test gear, a test apparatus, to analyze the network, and therefore, this indicates *Hoffman* is GUI-centric rather than network-centric.

The claimed invention of claim 1 can also obtain certain data for a user, such as detailed call test results. In at least one example, overall times of initiation, success times of initiation, failure times, and reasons for failures can be determined, which can help to analyze and locate any possible problems in the system. (See Paragraph [0106] in Applicants’ specification). *Hoffman* does not teach or suggest obtaining any such call test results.

For at least these reasons, *Hoffman* does not disclose or suggest each and every element of Applicants’ claimed invention of claim 1, and therefore, amended claim 1 should be allowed over the cited reference.

Claim 3:

Hoffman differs substantially from the claimed invention of amended independent claim 3. As explained above with respect to claim 1, *Hoffman* relates to a method of emulating a terminal and test apparatus for testing a communication network (Abstract). The method and test

apparatus of *Hoffman* can emulate certain test scenarios resulting from mis-operation of a connected apparatus and simulate terminal behavior encountered in practice. (Col. 3, lines 57-63). The test apparatus of *Hoffman* connects to a terminal of a telecommunication network to facilitate a method to emulate the terminal function. (Col. 5, lines 10-14). *Hoffman* emulates a terminal for testing a telecommunication network but focuses on correlating user entered keywords to compile an executable program. (Col. 3, lines 48-67). The test program executed by the test apparatus of *Hoffman* appears to be implemented from a test apparatus that emulates a terminal. In contrast, Applicants' claimed invention of claim 3 relates to a test method implemented by one or more built-in modules of a digital stored program control (SPC) switch.

The claimed invention of claim 3 includes, for example, the following elements: "setting related information for a calling and called user in a simulated call test through a human-machine interface of a back process module by a tester"; "transmitting call parameters to a front call control process module through a message channel by the back process module"; "initiating the call test after the front call control process module obtains related call test process parameters"; "sending, by the front call control process module, instructions to a hardware subsystem within the switch according to a call test control flowchart set"; "completing the test process according to the instructions from the front call control process module, and reporting a test result to the front call control process module by the hardware subsystem"; "processing the call test result, and collecting to the back process module by the front call control process module"; and "displaying the result by the back process module."

Certain embodiments of the Applicants' claimed invention can obtain one or more distinct results. For example, an embodiment of the claimed invention can facilitate convenient on-line communication network testing, which may help to find and locate any failure in the system in time. Furthermore, such testing may obtain much more detailed statistics on reasons associated with the failures than can be obtained using conventional terminal-to-terminal call testers.

For at least the foregoing reasons, *Hoffman* does not disclose or suggest each and every element of Applicants' claimed invention of claim 3, and therefore, the claimed invention of claim 3 should be allowable over the cited reference.

Allowable Subject Matter

The Office Action admits that dependent claims 2 and 4-6 contain allowable subject matter. Since amended independent claims 1 and 3 are believed to be patentable as argued above, the respective dependent claims 2, and 4-6, should also be allowable.

Newly Added Dependent Claim 7

Newly added dependent claim 7 is ultimately dependent from independent claim 1, for which arguments of patentability have been provided above. If the base independent claim is allowable over the cited reference, then the newly added dependent claim 7 should also be in condition for allowance.

CONCLUSION

It is not believed that extensions of time or fees for addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 19-5029.

Respectfully submitted,



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DATE: 15 MAY 2008

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Attorney Docket No.: **25515-0003**